

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed August 20, 2004. At the time of the Office Action, Claims 1-26 were pending in this Application. Claims 1-26 were rejected.

Specification Objection

The Examiner objected to the disclosure due to informalities. Applicant has amended the specification accordingly to overcome this objection.

Rejections under 35 U.S.C. §112

Certain claims were rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite and failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended the appropriate claims to overcome these rejections.

Rejections under 35 U.S.C. §102

Claims 1, 4, 7, 13-15, 18, 19, and 25 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 3,940,623 issued to Gunter Hempowitz et al. ("Hempowitz et al.").

Claims 1 and 18 have been amended to more clearly novel features of the present invention. In particular, Claims 1 and 18 now recite unique features of the filters and chopper.

The chopper of the present invention is a stationary array of light modulating elements. "Binary light modulating elements", in today's conventional terminology, means an array of elements, such as an array of LCD elements, that can be turned on or off to either pass or block light.

Hempowitz does not anticipate Claims 1 and 18. The chopper of Hempowitz is a rotating mechanical chopper with slits to control the light that passes through the chopper as it rotates. The slits are arranged so that light from either one filter or the other passes through the chopper, but not from both filters simultaneously.

Nor is an LCD equivalent to the chopper of Hempowitz. An LCD could not be substituted for the rotating chopper of Hempowitz. The rotating chopper has a specific geometry of slits, which would not correspond to pass-or-block elements of an LCD.

Nor are Claims 1 and 18 obvious from the teachings of Hempowitz. Hempowitz teaches that the two portions of the beam are split and separated, using prism system 6. Likewise, the two filters are separated. This separation of the beam must occur to overcome the characteristics of the mechanical chopper. This separation of the beam also permits oscillation of the filters. If the beam were not separated to some degree, it would not be possible to oscillate the filters.

Claims 1 and 18 recite that the filters and the LCD array are each divided into the same geometry of two adjacent sections. This geometry would not work with the oscillating filters of Hempowitz. Further, in Hempowitz, the need for placement of slits of a chopper simply does not permit a filter geometry and chopper geometry that exactly match.

Claims 1 and 18 are not obvious from Hempowitz. Claims 4 and 19 have been cancelled. Claims 7, 13-15, and 25 are dependent on Claims 1 and 18 and not obvious for the same reasons.

Rejections under 35 U.S.C. §103

Claims 2, 3, 8-12, and 21-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hempowitz et al. For the reasons discussed above, Claims 1 and 18 are not obvious from Hempowitz, nor are their independent claims.

Claims 5, 6, and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hempowitz et al. in view of U.S. Patent 5,552,841 issued to Massimo Gallorini et al. ("Gallorini et al."). Claims 16 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hempowitz et al. in view of Japanese Patent JP 9-264790A filed by Mitsutoshi Yaegashi ("Yaegashi"). Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hempowitz et al. in view of Yaegashi and Gallorini et al.

Claims 5, 17, and 20 have been cancelled. The following arguments apply to the non cancelled claims.

None of the cited references, alone or in combination, teach or suggest the invention of Claims 1 and 18. Substituting an LCD for the chopper of Hempowitz would not result in

the present invention. Hempowitz does not teach or suggest that an inner filter may be surrounded by an outer filter. Nor do Yaegashi or Gallorini suggest such an arrangement of filters and LCD elements.

Furthermore, the inner/outer filter arrangement of the present invention could not be oscillated, as taught by Hempowitz.

For these reasons, Claims 1 and 18 are allowable, as are their dependent claims.

CONCLUSION

Applicant has made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. Applicant respectfully requests reconsideration of all pending claims as amended.

Applicant encloses a Petition for Extension of Time (two months) and a check in the amount of \$450.00 for the extension fee. Applicant believes there are no other fees due at this time, however, the Commissioner is hereby authorized to charge any fees to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.322.2634.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorney for Applicant



Ann C. Livingston
Reg. No. 32,479

SEND CORRESPONDENCE TO:
Baker Botts L.L.P.
CUSTOMER ACCOUNT NO. 31625
512.322.2634